# **Sustainable Mobility**



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### What is Sustainable Mobility?

Vehicles

Energy

**Environment** 

**Partnerships** 

to power the product

in which the product "lives"

required to bring these products

to market

Government







**Businesses** 









**Fleet Customers** 

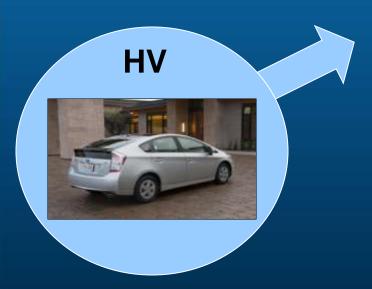
Research Universities

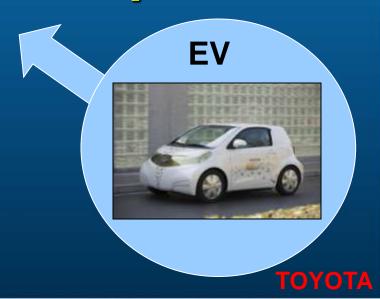
## **One Goal...Multiple Solutions**





### **Sustainable Mobility**





# Prius PHV Demonstration Program Strategy

Educate and Promote re: Toyota's CET Strategy

Educate broadly the merits and limitations of PHVs

Evaluate Retail and Fleet usage and potential markets

Promote installation of public charging

Evaluate interaction of PHV and "Smart Grid"

Government Influencers

Research Universities

**HV Intenders** 

Fleet Customers

SmartGridCityTM

# **Prius PHV Demonstration Program**

Letting the vehicle speak for itself, openly, honestly and publicly

- 163 Vehicles
  - Remote data collection & driver surveying
    - Viral education and outreach with many different drivers
      - Strengthening awareness through handoff events with partners







### Right Vehicle and Right Customer

#### Remote data collection device gives us:

#### **Trip Info**

- Length
- -% Hwy and City Travel
- -EV mode and HV mode miles
- -FE in HV and EV mode

#### **Charging Info**

- -time of day
- -length of charging event
- battery SOC at beginning and end of charge
- -energy usage

#### **Driver Feedback:**

#### Web-based pre-drive survey

- understanding of technology
- –experience with HVs
- demographics and psychographics

# Web-based mid- and post drive surveys

- -vehicle likes/dislikes
- satisfaction with EV range,FE, charging
- purchase consideration and willingness to pay

# **EV** Update





# Tesla/RAV4EV Partnership

- Toyota & Tesla intend to produce a RAV4 EV for U.S. market in 2012
- RAV4 EV demonstration vehicle reveal 2010 LA Auto Show
- Media First driving impressions Sustainable Mobility Seminar, March 2011
- Planning and developing a small urban commuter EV coming to market in 2012



# **FCHV-adv Update**



# **FCHV-adv Demo Program**

- More than 100 vehicles placed with program customers 2010 2013.
- Vehicles placed on West and East Coast
- Support development of hydrogen infrastructure prior to market launch in 2015
- To date, vehicles placed with SunHydro and NY/NJ Port Authority





# **Hydrogen Filling Station**

- Located across from TMS Headquarters campus
- Station owned and operated by Shell in partnership with AirProducts & Toyota (land owner)
- Retail station, as part of CA Hydrogen Highway effort



## **Summary**

- What's coming next?
  - 2012 More Hybrids, Prius PHV, Urban EV, RAV4EV
- What do we need from government?
  - Incentives Vehicles and EVSE's
  - Fleet Purchases
  - Public Infrastructure and Business Incentives
  - On-line Permits and inspection for Commercial/Residential RE - <u>State Wide</u>

Positive Customer experience for Market Growth!